

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



**THE RELATIONSHIP BETWEEN FINANCIAL, PRIVACY,
PRODUCT AND CONVENIENCE RISKS AND ONLINE
SHOPPING BEHAVIOR IN PAKISTAN**



ANAM BHATTI

**DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA**

January 2021

**THE RELATIONSHIP BETWEEN FINANCIAL, PRIVACY, PRODUCT AND
CONVENIENCE RISKS AND ONLINE SHOPPING BEHAVIOR IN PAKISTAN**

By

ANAM BHATTI



UUM
Universiti Utara Malaysia

**A thesis submitted to School of Business Management,
Universiti Utara Malaysia,
in fulfillment of the requirement for the
Degree of Doctor of Philosophy**



Pusat Pengajian Pengurusan Perniagaan
(School of Business Management)

Kolej Perniagaan
(College of Business)

Universiti Utara Malaysia

PERAKUAN KERJA TESIS / DISERTASI
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa
(We, the undersigned, certify that)

ANAM BHATTI (902979)

calon untuk Ijazah

DOCTOR OF PHILOSOPHY (MARKETING)

(candidate for the degree of)

telah mengemukakan tesis / disertasi yang bertajuk:

(has presented his/her thesis / dissertation of the following title):

**THE RELATIONSHIP BETWEEN FINANCIAL, PRIVACY, PRODUCT AND CONVENIENCE
RISKS AND ONLINE SHOPPING BEHAVIOR IN PAKISTAN**

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.

(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada:

11 Ogos 2020

(That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:

11th August 2020

Pengerusi Viva : **Assoc. Prof. Dr. Selvan A/L Perumal**
(Chairman for Viva)

Tandatangan
(Signature)

Pemeriksa Luar : **Assoc. Prof. Dr. Hashim Fadzil B. Ariffin**
(External Examiner)

Tandatangan
(Signature)

Pemeriksa Dalam : **Dr. Norkhazzaina Bt. Salahuddin**
(Internal Examiner)

Tandatangan
(Signature)

Tarikh: **11 Ogos 2020**
(Date)

Nama Nama Pelajar
(Name of Student) : **ANAM BHATTI**

Tajuk Tesis / Disertasi
(Title of the Thesis /
Dissertation) : **THE RELATIONSHIP BETWEEN FINANCIAL, PRIVACY, PRODUCT AND
CONVENIENCE RISKS AND ONLINE SHOPPING BEHAVIOR IN PAKISTAN**

Program Pengajian
(Programme of Study) : **Doctor of Philosophy (Marketing)**

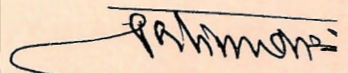
Nama Penyelia/Penyelia-
penyelia
(Name of
Supervisor/Supervisors) : **Dr. Shahrin B. Saad**



Dr. Salimon Maruf Gbadebo

UUM
Universiti Utara Malaysia


Tandatangan


Tandatangan

PERMISSION TO USE

In presenting this thesis in fulfillment of the requirement for a Post Graduate degree from Universiti Utara Malaysia (UUM) I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence, by the Dean of School of Business Management where I did my thesis. It is understood that any copying or publication or use of this thesis or parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM in any scholarly use which may be made of any material from my thesis.

Requests for permission to copy or to make other use of materials in this thesis in whole or in part should be addressed to:



Dean of School of Business Management
Universiti Utara Malaysia
06010, UUM Sintok
Kedah Darul Aman

Universiti Utara Malaysia

ABSTRACT

This study examines the influence of financial risk, privacy risk, product risk, and convenience risk on online shopping behavior with the moderating role of subjective norms and trust in Pakistan. The major motivation of this study is that in Pakistan online shopping faces challenges regarding perceived risks and subjective norms and trust can increase online shopping ratio. In addition, less attention has been paid over perceived risks, subjective norms, and trust to measure online shopping behavior in light of Theory of Planned Behavior, Social Exchange Theory, and perceived risk theory. Systematic random sampling technique used to collect data. Total of 600 questionnaires distributed among students studying in Higher Education Commission recognised universities in Punjab, Pakistan. Partial Least Square Structural Equation Modeling (PLS-SEM) was used to analyze direct and moderating relationships among constructs. The results elucidate that financial risk, privacy risk, product risk, and convenience risk has significant negative influence on online shopping behavior. Besides, subjective norms significantly moderate between financial risk, privacy risk, product risk, convenience risk, and online shopping behavior. Moreover, trust does not moderate between financial risk, product risk, and online shopping behavior. Trust significantly moderate between privacy risk, convenience risk, and online shopping behavior. In practical term, this study suggests online shopping vendors and Pakistan government to consider perceived risk, subjective norms, and trust to improve online shopping behavior.

Keywords: Financial risk, privacy risk, product risk, convenience risk, online shopping behavior

ABSTRAK

Kajian ini meneliti pengaruh risiko kewangan, risiko privasi, risiko produk dan risiko kemudahan ke atas tingkah laku membeli belah secara atas talian dengan peranan penyederhanaan norma subjektif dan kepercayaan di Pakistan. Tujuan utama kajian ini didorong oleh cabaran-cabaran yang dihadapi pembelian dalam talian di Pakistan dengan tanggapan risiko dan norma subjektif, dan kepercayaan dapat meningkatkan kadar membeli belah secara dalam talian. Selain itu, perhatian kurang diberikan kepada tingkah laku tanggapan risiko, norma subjektif, dan kepercayaan untuk mengukur tingkah laku membeli belah secara dalam talian dari segi teori tingkah laku terancang (TPB), teori pertukaran sosial (SET), dan teori tanggapan risiko. Teknik persampelan rawak bersistematik digunakan untuk mengumpul data. Sebanyak 600 soal selidik diedarkan dalam kalangan pelajar di universiti yang diiktiraf HEC di Punjab, Pakistan. Model Persamaan Berstruktur-Kuasa Dua Terkecil Separa (PLS-SEM) digunakan untuk menganalisis hubungan langsung dan penyederhanaan antara konstruk. Hasil kajian menunjukkan bahawa risiko kewangan, risiko privasi, dan risiko kemudahan mempunyai pengaruh negatif yang signifikan ke atas tingkah laku membeli belah secara dalam talian. Selain itu, norma subjektif menyederhanakan risiko kewangan, risiko privasi, risiko produk, risiko kemudahan dan tingkah laku membeli belah dalam talian secara signifikan. Di samping itu, kepercayaan tidak menyederhanakan risiko kewangan, risiko produk, dan tingkah laku membeli belah secara dalam talian. Kepercayaan menyederhanakan risiko privasi, risiko kemudahan dan tingkah laku membeli belah melalui dalam talian secara signifikan. Secara praktiknya, kajian ini mencadangkan penjual dalam talian dan kerajaan Pakistan untuk mengambil kira tanggapan risiko, norma subjektif, dan kepercayaan untuk meningkatkan tingkah laku membeli belah secara dalam talian.

Kata kunci: Risiko kewangan, risiko privasi, risiko produk, risiko, kemudahan, tingkah laku membeli belah secara dalam talian

ACKNOWLEDGEMENT

‘In the Name of ALLAH, Most Gracious, Most Merciful’

All praise is to ALLAH SWT the most beneficent and the most merciful. The lord of heaven and the world that created and guided me to complete this PhD journey successfully. May the peace and blessing of ALLAH SWT the most compassionate be upon our beloved prophet Hazrat Muhammad (PBUH).

The journey to all the achievement of my life would not have been possible without sleepless effort of my mother Manawar Sultana and my father Muhammad Mushtaq Bhatti. May ALLAH in his infinite mercy continue to bless and endow them in all their endeavors? I am also thankful to my brothers Muhammad Asif Bhatti and Hussnain Bhatti who have supported me in my whole Ph.D. journey. I am highly thankful to my sisters Asma Bhatti and Faiza Bhatti for their support and motivation. I am also thankful to Dr. Shafique Ur Rehman who has also supported me at every stage of my study in Universiti Utara Malaysia.

Having glorified ALLAH, I would also like to thank my supervisors and Ph.D. mentors, Dr. Shahrin Saad and Dr. Salimon Maruf Gbadebo for guiding me throughout this journey. The journey to this doctorate was undoubtedly made possible by my humble supervisors. Their kindness, knowledge and wisdom are highly appreciated as their constructive criticisms and support made this milestone to be achieved. I am also thankful to my internal reviewers Dr. Salniza Md Sallehand Dr. Norkhazzaina Salauddin who have given precious comments on my proposal. I am also thankful to my friends who have encouraged me throughout this journey.

I am also deeply indebted to the staff of School of Business Management. May ALLAH, the compassionate continue to support them in all their endeavors. To those names that I did not mention, you are equally important and I embrace you all with my never ending prayers. Lastly, I thank all the members of the viva committee and every other member.

I sincerely hope that ALLAH SWT BLESS you all. Ameen

Best Regards
Anam Bhatti

TABLE OF CONTENTS

	Page
CERTIFICATION OF THESIS WORK.....	iii
PERMISSION OF USE.....	v
ABSTRACT.....	vi
ABSTRAK.....	vii
ACKNOWLEDGEMENT.....	viii
TABLE OF CONTENTS.....	ix
LIST OF TABLES.....	xiii
LIST OF FIGURES.....	xiv
LIST OF ABBREVIATIONS.....	xv
CHAPTER ONE INTRODUCTION.....	1
1.1 Background of the Study.....	1
1.2 Problem statement.....	6
1.3 Research Objectives.....	10
1.4 Research Questions.....	11
1.5 Significance of the Study.....	11
1.5.1 Theoretical contribution.....	12
1.5.2 Practical contribution.....	14
1.6 The Scope of the Study.....	15
1.7 Definition of the Terms.....	16
1.8 Organization of the Study.....	18
CHAPTER TWO LITERATURE REVIEW.....	19
2.1 Introduction.....	19
2.2 Online Shopping Behavior.....	19
2.3 Factors Influencing Online Shopping Behavior.....	24
2.3.1 Financial Risk.....	24
2.3.2 Privacy Risk.....	28
2.3.3 Product Risk.....	32
2.3.4 Convenience Risk.....	35
2.4 Moderating Role of Trust and Subjective Norms.....	39
2.4.1 Trust.....	39
2.4.2 Subjective Norms.....	43
2.5 Empirical Studies of Related Literature.....	46
2.5.1 Financial Risk and Online Shopping Behavior.....	46
2.5.2 Privacy Risk and Online Shopping Behavior.....	51
2.5.3 Product Risk and Online Shopping Behavior.....	53
2.5.4 Convenience Risk and Online Shopping Behavior.....	57
2.6 Trust and Online Shopping Behavior.....	60
2.7 Subjective Norms and Online Shopping Behavior.....	63
2.8 Moderating Effect of Trust and Subjective Norms in Online Shopping Behavior.....	65
2.8.1 Moderating Effect of Trust and Subjective Norms Between Financial Risk and Online Shopping Behavior.....	66
2.8.2 Moderating Effect of Trust and Subjective Norms Between Privacy Risk and Online Shopping Behavior.....	68

2.8.3	Moderating Effect of Trust and Subjective Norms Between Product Risk and Online Shopping Behavior.....	71
2.8.4	Moderating Effect of Trust and Subjective Norms Between Convenience Risk And Online Shopping Behavior.....	73
2.9	Underpinning Theories.....	75
2.9.1	Theory of Planned Behavior (TPB).....	76
2.9.2	Perceive Risk Theory.....	79
2.9.3	Social Exchange Theory (SET).....	80
2.10	Theoretical Framework.....	83
2.11	Research Gap.....	83
2.12	Chapter Summary.....	84
	CHAPTER THREE RESEARCH METHODOLOGY.....	85
3.1	Introduction	85
3.2	Research Paradigm.....	85
3.3	Research Design.....	86
3.3.1	Research Design Types.....	86
3.4	Quantitative Design.....	87
3.4.1	Time Horizon.....	88
3.5	Population of the Study.....	88
3.6	Sample of the Study.....	89
3.6.1	Sampling Techniques.....	92
3.7	Questionnaire Design.....	94
3.8	Operational Definitions and Measurement of Variables.....	95
3.8.1	Online Shopping Behavior.....	95
3.8.2	Financial Risk.....	97
3.8.3	Privacy Risk.....	98
3.8.4	Product Risk.....	98
3.8.5	Convenience Risk.....	99
3.8.6	Trust.....	100
3.8.7	Subjective Norms.....	101
3.9	Data Collection.....	102
3.9.1	Data Collection Procedure.....	102
3.9.2	Pilot Study.....	102
3.9.3	Descriptive Analysis.....	105
3.10	Factor Analysis.....	105
3.10.1	Online Shopping Behavior.....	107
3.10.2	Financial Risk.....	108
3.10.3	Privacy Risk.....	109
3.10.4	Product Risk.....	110
3.10.5	Convenience Risk.....	110
3.10.6	Trust.....	111
3.10.7	Subjective Norms.....	112
3.11	Data Analysis Techniques.....	113
3.11.1	Assessment of Measurement Model.....	114
3.12	Chapter Summary.....	118
	CHAPTER FOUR FINDINGS AND DISCUSSION.....	119

4.1	Introduction.....	119
4.2	Response Rate.....	119
4.3	Data Screening.....	120
4.4	Non-response Bias Test.....	123
4.5	Multicollinearity.....	126
4.6	Common Bias Method (CBM).....	127
4.7	Demographic Profile of the Respondents	129
4.8	Descriptive Statistics Constructs.....	131
	4.8.1 Online Shopping Behavior (Endogenous Variable).....	133
	4.8.2 Financial Risk (Exogenous Construct).....	134
	4.8.3 Privacy Risk (Exogenous Construct).....	135
	4.8.4 Product Risk (Exogenous Construct).....	136
	4.8.5 Convenience Risk (Exogenous Construct).....	137
	4.8.6 Subjective Norms.....	138
	4.8.7 Trust.....	139
4.9	Assessment of PLS-SEM Path Model Results	140
	4.9.1 Internal Consistency Reliability.....	143
	4.9.2 Individual Item Reliability.....	144
	4.9.3 Construct Validity.....	146
	4.9.4 Conclusion on Measurement Model Assessment	151
4.10	Assessment of Structural Model.....	153
	4.10.1 Coefficient of Determination (R^2).....	153
	4.10.2 Effect Size	154
	4.10.3 Predictive Relevance of the Model (Q^2).....	155
	4.10.4 Model Fit.....	157
4.11	Hypotheses Testing for Direct Relationships	157
4.12	Testing Moderation Effects	160
4.13	Summary of Hypotheses	167
4.14	Discussion of Findings.....	167
4.15	Direct Relationships among Independent Variables and Dependent Variable.....	169
	4.15.1 Relationship between Financial Risk and Online Shopping Behavior.....	169
	4.15.2 Relationship between Privacy Risk and Online Shopping Behavior.....	170
	4.15.3 Relationship between Product Risk and Online Shopping Behavior.....	171
	4.15.4 Relationship between Convenience Risk and Online Shopping Behavior.....	173
	4.15.5 Relationship between Trust and Online Shopping Behavior....	175
	4.15.6 Relationship between Subjective Norms and Online Shopping Behavior.....	176
4.16	Test of Moderation.....	178
	4.16.1 Relationship between Financial Risk, Trust, and Online Shopping Behavior.....	178
	4.16.2 Relationship between Financial Risk, Subjective Norms, and	

Online Shopping Behavior.....	180
4.16.3 Relationship between Privacy Risk, Trust, and Online Shopping Behavior.....	181
4.16.4 Relationship between Privacy Risk, Subjective Norms, and Online Shopping Behavior.....	182
4.16.5 Relationship between Product Risk, Trust, and Online Shopping Behavior.....	183
4.16.6 Relationship between Product Risk, Subjective Norms, and Online Shopping Behavior.....	184
4.16.7 Relationship between Convenience Risk, Trust, and Online Shopping Behavior.....	185
4.16.8 Relationship between Convenience Risk, Subjective Norms, and Online Shopping Behavior.....	186
4.17 Summary of the Chapter.....	187
CHAPTER FIVE CONCLUSION.....	189
5.1 Introduction.....	189
5.2 Recapitulation of Study.....	189
5.3 Objectives of the study	191
5.3.1 The relationship between financial risk and online shopping behavior.....	191
5.3.2 The relationship between privacy risk and online shopping behavior.....	194
5.3.3 The relationship between product risk and online shopping behavior.....	195
5.3.4 The relationship between convenience risk and online shopping behavior.....	197
5.3.5 Trust moderates the relationship between perceived risks and online shopping behavior	199
5.3.6 Subjective norms moderate the relationship between perceived risks and online shopping behavior.....	201
5.4 Contribution as Moderator.....	203
5.5 Contributions to the Study.....	204
5.5.1 Theoretical Contribution.....	204
5.5.2 Practical Contribution.....	207
5.6 Limitations and Recommendations of This Study.....	209
5.7 Conclusion.....	210
References.....	215
Questionnaires.....	254

LIST OF TABLES

Table		Page
Table 1.1	Internet Penetration Rate and E-Commerce Sales of Some Developed and Developing Countries.....	3
Table 1.2	Online Shopping Trend in Pakistan.....	4
Table 1.3	Major indicators of e-commerce industry in South Asian Countries.....	5
Table 3.1	Determining Sample Size from a given Population.....	90
Table 3.2	Distribution of Universities in Pakistan.....	92
Table 3.3	Online Shopping Behavior Measurement.....	96
Table 3.4	Financial Risk Measurement.....	97
Table 3.5	Privacy Risk Measurement.....	98
Table 3.6	Product Risk Measurement.....	99
Table 3.7	Convenience Risk Measurement.....	100
Table 3.8	Trust Measurement.....	100
Table 3.9	Subjective Norms Measurement.....	101
Table 3.10	Pilot Study.....	104
Table 3.11	Factor Analysis for Online Shopping Behavior.....	107
Table 3.12	Factor Analysis for Financial Risk.....	108
Table 3.13	Factor Analysis for Privacy Risk.....	109
Table 3.14	Factor Analysis for Product Risk.....	110
Table 3.15	Factor Analysis for Convenience Risk.....	111
Table 3.16	Factor Analysis for Trust.....	112
Table 3.17	Factor Analysis for Subjective Norms.....	112
Table 4.1	Response Rate of the Questionnaires.....	120
Table 4.2	Normality Test of Skewness and Kurtosis Ratios.....	122
Table 4.3	Descriptive Statistics for Early and Late Respondents.....	124
Table 4.4	Independent Samples T-test for Equality of Mean.....	125
Table 4.5	Tolerance and Variance Inflation Factors (VIF).....	127
Table 4.6	Common Bias Method Variance Test.....	128
Table 4.7	Demographic Characteristics of the Respondents (N=550).....	130
Table 4.8	Descriptive Analysis of the Constructs.....	132
Table 4.9	Descriptive Analysis of Online Shopping Behavior.....	134
Table 4.10	Descriptive Analysis of Financial Risk.....	135
Table 4.11	Descriptive Analysis of Privacy Risk.....	136
Table 4.12	Descriptive Analysis of Product Risk.....	137
Table 4.13	Descriptive Analysis of Convenience Risk.....	138
Table 4.14	Descriptive Analysis of Subjective Norms.....	139
Table 4.15	Descriptive Analysis of Trust.....	140
Table 4.16	Analysis of Items Used for Structural Model.....	142
Table 4.18	Analysis of Items Used for Structural Model.....	144
Table 4.19	Indicator Individual Reliability.....	145
Table 4.20	Cross Loadings.....	148
Table 4.21	Convergent Validity (Average Variance Extracted).....	150
Table 4.22	Discriminant Validity.....	151
Table 4.23	Results of Variance Explained in the Endogenous Variables.....	154

Table 4.24	Effect Size of Exogenous on Online Shopping Behavior (Endogenous Variable).....	155
Table 4.25	The Predictive Relevance of the Model.....	156
Table 4.26	Model Fit	157
Table 4.27	The Results of Inner Model.....	159
Table 4.28	Hypothesis Testing for Moderating Relationships.....	162
Table 4.29	Summary of Hypotheses	167



LIST of FIGURES

	Pages
Figure 2.1 Theoretical Framework: Financial Risk, Product Risk, Privacy Risk, Convenience Risk, Trust, Subjective Norms, Online Shopping Behavior	83
Figure 4.1 A Two-Step PLS Path Model Assessment	141
Figure 4.2 Measurement Model	152
Figure 4.3 Structural Model (Direct Relationship)	159
Figure 4.4 Structural Model (Indirect Relationship)	161
Figure 4.5 The Moderating Effect of Subjective Norms on Financial Risk-->Online Shopping Behavior	162
Figure 4.6 The Moderating Effect of Trust on Privacy Risk-->Online Shopping Behavior	163
Figure 4.7 The Moderating Effect of Subjective Norms on Privacy Risk-->Online Shopping Behavior	164
Figure 4.8 The Moderating Effect of Subjective Norms on Product Risk-->Online Shopping Behavior	165
Figure 4.9 The Moderating Effect of Trust on Convenience Risk-->Online Shopping Behavior	165
Figure 4.10 The Moderating Effect of Subjective Norms on Convenience Risk-->Online Shopping Behavior	166



LIST of ABBREVIATIONS

AVE	Average Variance Extracted
CBM	Common Bias Method
CR	Composite Reliability
CR	Convenience Risk
FR	Financial Risk
OSB	Online Shopping Behavior
PDR	Product Risk
PPR	Privacy Risk
TPB	Theory of Planned Behavior
SET	Social Exchange Theory
VIF	Variance Inflation Factors



CHAPTER ONE

INTRODUCTION

1.1 Background of the study

This study focuses on factors that influence online shopping behavior of consumers in Pakistan. Online shopping behavior is seen as less popular in the emerging economies when compared with the developed economies. Besides, this study also discusses the factors that cause the reduction of online shopping behavior among consumers.

Online shopping plays a significant role in last two decades and more than 1.6 billion people all over the world purchase goods online (Rehman, Bhatti, Mohamed, & Ayoup, 2019). The main focus of the current research is to examine the factors that influence online shopping behavior of the consumers, particularly in Pakistan. Majority of the research conducted on online shopping behavior were focused on developed countries, while little attention has been given to the developing countries in this area. According to The Nation (2020), more than 38,300 reports received by police regarding online shopping fraud last year, although 5,500 of cases regarding the complaint was withdrawn after the ordered goods arrived late. Hence, this study primarily focuses on Pakistan as to what factors play a role in determining online shopping behavior of the consumers.

This revolutionary era have witnessed how the internet has played plethora roles in daily life which henceforth contribute to a surge in internet buying (Lian & Lin, 2008). According to one report from Statista (2018), the internet users has also increased

References

- Abrar, K., Naveed, M., & Ramay, M. (2017). Impact of perceived risk on online impulse buying tendency: An empirical study in the consumer market of Pakistan. *Journal of Accounting & Marketing*, 6(3), 246.
- AbuShanab, E., Pearson, J. M., & Setterstrom, A. J. (2010). Internet banking and customers' acceptance in Jordan: the unified model's perspective. *Communications of the Association for Information Systems*, 26(1), 23.
- Acuna, E., & Rodriguez, C. (2004). The treatment of missing values and its effect on classifier accuracy *Classification, Clustering, and Data Mining Applications* (pp. 639-647): Springer.
- Adams, J., Khan, H. T., Raeside, R., & White, D. I. (2007). *Research Methods for Graduate Business and Social Science Students*: SAGE publications India.
- Adnan, H. (2014). An analysis of the factors affecting online purchasing behavior of Pakistani consumers. *International Journal of Marketing Studies*, 6(5), 133.
- Aghekyan-Simonian, M., Forsythe, S., Kwon, W. S., & Chattaraman, V. (2012). The role of product brand image and online store image on perceived risks and online purchase intentions for apparel. *Journal of Retailing and Consumer Services*, 19(3), 325-331.
- Ahmed, Z., Su, L., Rafique, K., Khan, S. Z., & Jamil, S. (2017). A study on the factors affecting consumer buying behavior towards online shopping in Pakistan. *Journal of Asian Business Strategy*, 7(2), 44.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.

- Ajzen, I., & Driver, B. L. (1991). Prediction of leisure participation from behavioral, normative, and control beliefs: An application of the theory of planned behavior. *Leisure Sciences*, 13(3), 185-204.
- Akroush, M. N., & Al-Debei, M. M. (2015). An integrated model of factors affecting consumer attitudes towards online shopping. *Business Process Management Journal*, 21(6), 1353-1376.
- Al Kailani, M., & Kumar, R. (2011). Investigating uncertainty avoidance and perceived risk for impacting Internet buying: A study in three national cultures. *International Journal of Business and Management*, 6(5), 76.
- All, e. T. f. (2020). E-commerce and Developing Countries: The South Asian Experience. Retrieved 26 August, 2020, from <https://etradeforall.org/e-commerce-and-developing-countries-the-south-asian-experience/>
- Almousa, M. (2011). Perceived Risk in Apparel Online Shopping: A Multi Dimensional Perspective/LE RISQUE PERÇU DANS DES ACHATS EN LIGNE D'HABILLEMENT: UNE PERSPECTIVE DE DIMENSIONNELLE MULTIPLE. *Canadian Social Science*, 7(2), 23.
- Alreck, P., & Settle, R. B. (2002). Gender effects on Internet, catalogue and store shopping. *Journal of Database Marketing & Customer Strategy Management*, 9(2), 150-162.
- Anthony, D., Henderson, T., & Kitts, J. (2009). Trust and privacy in distributed work groups *Social Computing and Behavioral Modeling* (pp. 1-8): Springer.
- Anthony, D., Kitts, J. A., Masone, C., & Smith, S. W. (2010). Internet exchange and forms of trust. *Trust and Technology in a Ubiquitous Modern Environment:*

- Theoretical and Methodological Perspectives. Hershey, PA: IGI Global (2010), 257-269.*
- AnumTariq, Bashir, B., & Shad, M. A. (2016). Factors affecting online shopping behavior of consumers in Pakistan *Journal of Marketing and Consumer Research, 19.*
- Ariff, M. S. M., Sylvester, M., Zakuan, N., Ismail, K., & Ali, K. M. (2014). *Consumer Perceived Risk, Attitude and Online Shopping Behaviour; Empirical Evidence from Malaysia.* Paper presented at the IOP Conference Series: Materials Science and Engineering.
- Armstrong, J. S., & Overton, T. S. (1977). Estimating non response bias in mail surveys. *Journal of Marketing Research, 14*(3), 396-402.
- Arshad, A., Zafar, M., Fatima, I., & Khan, S. K. (2015). The Impact of Perceived Risk on Online Buying Behavior. *International Journal of New Technology and Research (IJNTR) ISSN, 2454-4116.*
- Azadavar, R., Shahbazi, D., & Teimouri, E. (2011). *The role of security as a customer perception of customers' online purchasing behavior.* Paper presented at the International conference on software and computer applications IPCSIT.
- Ba, S., Stallaert, J., Whinston, A. B., & Zhang, H. (2005). Choice of transaction channels: The effects of product characteristics on market evolution. *Journal of Management Information Systems, 21*(4), 173-197.
- Babakus, E., & Mangold, W. G. (1992). Adapting the SERVQUAL scale to hospital services: an empirical investigation. *Health Services Research, 26*(6), 767.
- Babbie, E. R. (1990). Survey research methods Wadsworth Pub. Co Belmont, Calif, 3(9).

- Babbie, E. R. (2004). *The Practice of Social Research*: Nelson Education.
- Bacon, D. R., Sauer, P. L., & Young, M. (1995). Composite reliability in structural equations modeling. *Educational and Psychological Measurement*, 55(3), 394-406.
- Barclay, D., Higgins, C., & Thompson, R. (1995). *The Partial Least Squares (pls) Approach to Casual Modeling: Personal Computer Adoption Ans Use as an Illustration*.
- Barnes, S. J., Bauer, H. H., Neumann, M. M., & Huber, F. (2007). Segmenting cyberspace: a customer typology for the internet. *European Journal of Marketing*, 41(1/2), 71-93.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173.
- Bashir, R., Mehboob, I., & Bhatti, W. K. (2015). Effects of online shopping trends on consumer-buying Behavior: an empirical study of Pakistan. *Journal of Management and Research*, 2(2), 1-24.
- Bauer, R. A. (1960). Consumer behavior as risk taking. *Chicago, IL*, 384-398.
- Bernard, H. R. (2002). Research methods in anthropology: Qualitative and quantitative approaches (3rd ed.). Walnut Creek, CA: Alta Mira Press.
- Bhatnagar, A., & Ghose, S. (2004). Online information search termination patterns across product categories and consumer demographics. *Journal of Retailing*, 80(3), 221-228.

- Bhatnagar, A., Misra, S., & Rao, H. R. (2000). On risk, convenience, and Internet shopping behavior. *Communications of the ACM*, 43(11), 98-105.
- Bhatti, A., & Akram, H. (2020). The Moderating Role Of Subjective Norms Between Online Shopping Behaviour And Its Determinants. *International Journal of Social Sciences and Economic Review*, 2(1), 1-09.
- Bhatti, A., & Rehman, S. U. (2019). Perceived benefits and perceived risks effect on online shopping behavior with the mediating role of consumer purchase intention in Pakistan. *International Journal of Management Studies*, 26(1), 33-54.
- Bhatti, A., Saad, S., & Gbadebo, S. M. (2018a). Convenience Risk, Product Risk, and Perceived Risk Influence on Online Shopping: Moderating Effect of Attitude. *International journal of Business Management*, 3(2), 1-11.
- Bhatti, A., Saad, S., & Gbadebo, S. M. (2018b). Convenience Risk, Product Risk, and Perceived Risk Influence on Online Shopping: Moderating Effect of Attitude. *Science Arena Publications International Journal of Business Management*, 3(2).
- Bhatti, A., Saad, S., & Gbadebo, S. M. (2020). Moderator Trust, Subjective Norms influence risk and Online Shopping Behavior of consumers. *International Journal of Science & Technology Research*, 9(1), 627-641.
- Bhatti, A., Saad, S., & Salimon, M. G. (2019). The Influence of Risks on Online Shopping Behaviour in Pakistan. *International Journal of Innovation, Creativity and Change*, 10(9), 310-327.
- Bianchi, C., & Andrews, L. (2012). Risk, trust, and consumer online purchasing behaviour: a Chilean perspective. *International Marketing Review*, 29(3), 253-275.

- Bijttebier, P., Delva, D., Vanoost, S., Bobbaers, H., Lauwers, P., & Vertommen, H. (2000). Reliability and validity of the Critical Care Family Needs Inventory in a Dutch-speaking Belgian sample. *Heart & Lung: The Journal of Acute and Critical Care*, 29(4), 278-286.
- Blau, P. (1964). *Exchange and power in social life*: Routledge.
- Bourque, L. B., & Fielder, E. P. (1995). How To Conduct Self-Administered and Mail Surveys. The Survey Kit, Volume 3.
- Boyd, J. (2003). The rhetorical construction of trust online. *Communication Theory*, 13(4), 392-410.
- Boyle, R. J., & Ruppel, C. P. (2006). The effects of personal innovativeness, perceived risk, and computer self-efficacy on online purchasing intent. *Journal of International Technology and Information Management*, 15(2), 5.
- Brooke, M. (2013). Which Research Paradigm for TESOL? Theory and Practice in Language Studies, *Academy Publisher*, 3(3), 430-436.
- Brown, I., & Buys, M. (2005). Customer satisfaction with internet banking web sites: An empirical test and validation of a measuring instrument.
- Browne, R. H. (1995). On the use of a pilot sample for sample size determination. *Statistics in Medicine*, 14(17), 1933-1940.
- Brüseke, L. (2016). *The influence of privacy perceptions on online shopping behavior: a comparison between millennials and baby boomers* (Bachelor's thesis, University of Twente).

- Bryant, F. B., Yarnold, P. R., & Michelson, E. A. (1999). Statistical methodology: VIII. Using confirmatory factor analysis (CFA) in emergency medicine research. *Academic Emergency Medicine*, 6(1), 54-66.
- Bryman, A. (2001). *Social research methods*. New York: Oxford University Press.
- Buchan, N. R., Croson, R. T., & Dawes, R. M. (2002). Swift neighbors and persistent strangers: A cross-cultural investigation of trust and reciprocity in social exchange. *American Journal of Sociology*, 108(1), 168-206.
- Burrell, G., & Morgan, G. (2017). *Sociological paradigms and organisational analysis: Elements of the sociology of corporate life*. Routledge.
- Butler, P., & Peppard, J. (1998). Consumer purchasing on the Internet:: Processes and prospects. *European Management Journal*, 16(5), 600-610.
- Cavana, R., Delahaye, B., & Sekeran, U. (2001). *Applied business research: Qualitative and quantitative methods*. John Wiley & Sons.
- Cha, J. (2011). Exploring the internet as a unique shopping channel to sell both real and virtual items: A comparison of factors affecting purchase intention and consumer characteristics. *Journal of Electronic Commerce Research*, 12(2), 115.
- Chang, J. (2003). Online Shopping: Advantages over the Offline Alternative. *The Journal of Internet Banking and Commerce*, 8(2).
- Chang, M. K., Cheung, W., & Lai, V. S. (2005). Literature derived reference models for the adoption of online shopping. *Information & Management*, 42(4), 543-559.
- Chapell, A. (2005). Eye on privacy. *Target Marketing*, 28(10), 27.
- Chaturvedi, S., Gupta, S., & Hada, D. S. (2016). Perceived Risk, Trust and Information Seeking Behavior as Antecedents of Online Apparel Buying Behavior in India:

- An Exploratory Study in Context of Rajasthan. *International Review of Management and Marketing*, 6(4).
- Chen, C. (2006). Identifying significant factors influencing consumer trust in an online travel site. *Information Technology & Tourism*, 8(3-4), 197-214.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295(2), 295-336.
- Chin, W. W. (2010). How to write up and report PLS analyses *Handbook of partial least squares* (pp. 655-690): Springer.
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, 14(2), 189-217.
- Chuchinprakarn, S. (2005). Application of the theory of reasoned action to on-line shopping. *Knowledge Center E-paper Bangkok University*, 1-7.
- Claudia, I. (2012). Perceived risk when buying online: evidence from a semi-structured interview. *Economics Series*, 22(2), 63-73.
- Constantinides, E., Lorenzo-Romero, C., & Gómez, M. A. (2010). Effects of web experience on consumer choice: a multicultural approach. *Internet Research*, 20(2), 188-209.
- Cook, K. S. (2005). Networks, norms, and trust: the social psychology of social capital 2004 cooley mead award address. *Social Psychology Quarterly*, 4-14.

- Costello, A. B., & Osborne, J. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, and Evaluation, 10*(1), 7.
- Crespo, A. H., del Bosque, I. R., & de los Salmones Sanchez, M. G. (2009). The influence of perceived risk on Internet shopping behavior: a multidimensional perspective. *Journal of Risk Research, 12*(2), 259-277.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed method approaches* (4th ed.). Thousand Oaks, California: Sage Publications
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297-334.
- Cunningham, M. S. (1967). The major dimensions of perceived risk. *Risk taking and information handling in consumer behavior*.
- Dai, B. (2007). *The impact of online shopping experience on risk perceptions and online purchase intentions: the moderating role of product category and gender*.
- Davis, D., & Cosenza, R. M. (2005). *Busniess research for decision making/duane davis and Robert M. Cosenza*.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science, 35*(8), 982-1003.
- DAWN. (2019). Pakistan's booming e-commerce market is just getting started. from <https://www.dawn.com/news/1397446>

- Dayal, S., Landesberg, H., & Zeisser, M. (1999). How to build trust online. Marketing in electronic commerce environments. *Journal of Information Technology*, 14(1), 319-331.
- Delafrooz, N., Paim, L. H., & Khatibi, A. (2010). Students' online shopping behavior: An empirical study. *Journal of American Science*, 6(1), 137-147.
- Diamantopoulos, A., & Winklhofer, H. M. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of Marketing Research*, 38(2), 269-277.
- Doolin, B., Dillon, S., Thompson, F., & Corner, J. L. (2005). Perceived risk, the Internet shopping experience and online purchasing behavior: A New Zealand perspective. *Journal of Global Information Management (JGIM)*, 13(2), 66-88.
- Dost, B., Illyas, M., & Rehman, C. A. (2015). Online Shopping Trends and Its Effects on Consumer Buying Behavior: A Case Study of Young Generation of Pakistan. *NG-Journal of Social Development*, 417(3868), 1-22.
- Drennan, J., Sullivan, G., & Previte, J. (2006). Privacy, risk perception, and expert online behavior: An exploratory study of household end users. *Journal of Organizational and End User Computing (JOEUC)*, 18(1), 1-22.
- Duance, D., & Cosenza, R. M. (2005). *Business research for decision making/duance davis and Robert M. Cosenza*.
- Dyba, T. (2005). An empirical investigation of the key factors for success in software process improvement. *IEEE Transactions on Software Engineering*, 31(5), 410-424.

- Earp, J. B., & Baumer, D. (2003). Innovative web use to learn about consumer behavior and online privacy. *Communications of the ACM*, 46(4), 81-83.
- ecInsider. (2018). eCommerce penetration in Malaysia is now 5% of retail sales (2017f). from <https://www.ecinsider.my/2017/03/ecommerce-penetration-malaysia-is-5pct-of-retail-sales.html>
- Egeln, L. S., & Joseph, J. A. (2012). Shopping cart abandonment in online shopping. *Atlantic Marketing Journal*, 1(1), 1.
- El-Tayeb, M., Albaseet, S., & Mahmoud, A. (2007). A study on online shopping in Saudi Arabia. *King Fahad University of Petroleum and Minerals, Saudi Arabia*.
- Ellen, R. F. (1984). *Ethnographic research: A guide to general conduct*. New York, NY: Academic Press.
- Elliot, S., & Fowell, S. (2000). Expectations versus reality: a snapshot of consumer experiences with Internet retailing. *International Journal of Information Management*, 20(5), 323-336.
- Emerson, R. M. (1962). Power-dependence relations. *American Sociological Review*, 31-41.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
- Eri, Y., Islam, M. A., & Daud, K. A. K. (2011). Factors that influence customers' buying intention on shopping online. *International Journal of Marketing Studies*, 3(1), 128.

- Export.gov. (2017, June 06). Malaysia - eCommerce. from <https://www.export.gov/apex/article2?id=Malaysia-E-Commerce>
- Eyisi, D. (2016). The Usefulness of Qualitative and Quantitative Approaches and Methods in Researching Problem-Solving Ability in Science Education Curriculum. *Journal of Education and Practice*, 7(15), 91-100.
- Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling*: University of Akron Press.
- Fang, Y., Qureshi, I., Sun, H., McCole, P., Ramsey, E., & Lim, K. H. (2014). Trust, Satisfaction, and Online Repurchase Intention: The Moderating Role of Perceived Effectiveness of E-Commerce Institutional Mechanisms. *MIS Quarterly*, 38(2).
- Fastoso, F., Whitelock, J., Bianchi, C., & Andrews, L. (2012). Risk, trust, and consumer online purchasing behaviour: a Chilean perspective. *International Marketing Review*, 29(3), 253-275.
- Fatin Alia, S. (2016). *Understanding student's online shopping behaviour: A study among undergraduate students in UUM*. Universiti Utara Malaysia.
- Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: a perceived risk facets perspective. *International Journal of Human-Computer Studies*, 59(4), 451-474.
- Field, A. (2009). *Discovering statistics using SPSS*: Sage publications.
- Fornell, C. (1994). Partial least squares. *Advanced methods of marketing research*.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 39-50.

- Forrester Research, I. (2002). "NRF/ Forrester online research index." Cambridge, MA: Forrester Research, Inc. [Online]. from <http://www.forrester.com>.
- Forsythe, S., Liu, C., Shannon, D., & Gardner, L. C. (2006). Development of a scale to measure the perceived benefits and risks of online shopping. *Journal of Interactive Marketing*, 20(2), 55-75.
- Forsythe, S. M., Liu, C., Shannon, D., & Gardner, L. C. (2006). Development of a scale to measure the perceived benefits and risks of online shopping. *Journal of Interactive Marketing*, 20(2), 55-75.
- Forsythe, S. M., & Shi, B. (2003). Consumer patronage and risk perceptions in Internet shopping. *Journal of Business Research*, 56(11), 867-875.
- Garbarino, E., & Strahilevitz, M. (2004). Gender differences in the perceived risk of buying online and the effects of receiving a site recommendation. *Journal of Business Research*, 57(7), 768-775.
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27(1), 51-90.
- Gefen, D., & Straub, D. W. (2003). Managing user trust in B2C e-services. *E-service Journal*, 2(2), 7-24.
- Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, 61(1), 101-107.
- GeoNews. (2017, Dec 05). E-commerce in Pakistan expected to boost to \$1 billion by 2020: report. from <https://www.geo.tv/latest/170740-pakistan-s-e-commerce-market-size-to-grow-upto-1-bln-by-2020>

- Gall, M. D., Gall, J. P., & Borg, W. R. (2003). *Educational research: An introduction* (7th ed.). Boston, MA: Pearson.
- George, J. F. (2002). Influences on the intent to make Internet purchases. *Internet Research*, 12(2), 165-180.
- Guba, E. G. (1990). *The paradigm dialog*. Paper presented at the Alternative Paradigms Conference, Mar, 1989, Indiana U, School of Education, San Francisco, CA, US.
- Ha, S., & Stoel, L. (2009). Consumer e-shopping acceptance: Antecedents in a technology acceptance model. *Journal of Business Research*, 62(5), 565-571.
- Haider, A., & Nasir, N. (2016). Factors Affecting Online Shopping Behavior of Consumers in Lahore, Pakistan.
- Hair, J. F., Anderson, R. E., Tatham, R. L., Black, B., & Babin, B. (2006). *Multivariate Data Analysis* (6th ed.). Upper Saddle River, NJ.: Pearson Education.
- Hair, J. F., Black, W., Babin, B., & Anderson, R. (2010). Multivariate data analysis. *Vectors*, 8(2), 125-136.
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks: Sage Publications.
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd edition ed.). Thousand Oaks: Sage Publications.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance.

- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414-433.
- Haque, A., & Khatibi, A. (2006). The study of the behaviour of Malaysian consumers towards online shopping. *Asian Journal of Information Technology*, 5(1), 12-19.
- Hardin, R. (2002). *Trust and trustworthiness*: Russell Sage Foundation.
- Hayduk, L. A., & Littvay, L. (2012). Should researchers use single indicators, best indicators, or multiple indicators in structural equation models? *BMC Medical Research Methodology*, 12(1), 159.
- Hayhoe, C. R., Leach, L. J., Turner, P. R., Bruin, M. J., & Lawrence, F. C. (2000). Differences in spending habits and credit use of college students. *Journal of Consumer Affairs*, 34(1), 113-133.
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., . . . Calantone, R. J. (2014). Common beliefs and reality about PLS: Comments on Rönkkö and Evermann (2013). *Organizational Research Methods*, 17(2), 182-209.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing *New Challenges to International Marketing* (pp. 277-319). Bingley: Emerald Group Publishing Limited.
- Higher Education Commission, P. (2016). Universities statistics, University wise enrollment of year 2015-16. from <http://www.hec.gov.pk/english/universities/Pages/AJK/UniversitiesStatistics.aspx>

- Hill, R. (1998). What sample size is “enough” in internet survey research. *Interpersonal Computing and Technology: An Electronic Journal for the 21st century*, 6(3-4), 1-10.
- Hoffman, D. L., Novak, T. P., & Peralta, M. (1999). Building consumer trust online. *Communications of the ACM*, 42(4), 80-85.
- Hofstede, G. (1991). Cultures and organizations: Intercultural cooperation and its importance for survival. *Software of the Mind London: McGraw-Hill*.
- Holthausen, J. (2010). *Scientific review of the Social Exchange Theory and its contribution to solving purchasers' decision making issues*. University of Twente.
- Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology*, 63(6), 597-606.
- Hong, I. B., & Cha, H. S. (2013). The mediating role of consumer trust in an online merchant in predicting purchase intention. *International Journal of Information Management*, 33(6), 927-939.
- Horton, R. L. (1976). The structure of perceived risk: Some further progress. *Journal of the Academy of Marketing Science*, 4(4), 694-706.
- Hsin Chang, H., & Wen Chen, S. (2008). The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator. *Online Information Review*, 32(6), 818-841.
- Hu, L.-t., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424.

- Huarnng, A. S., & Christopher, D. (2003). Planning an effective internet retail store. *Marketing Intelligence & Planning*, 21(4), 230-238.
- Ingene, C. A., & Hughes, M. (1985). Risk management by consumers. *Research in Consumer Behavior*, 1, 103-158.
- Isaac, S., & Michael, W. B. (1995). *Handbook in research and evaluation: A collection of principles, methods, and strategies useful in the planning, design, and evaluation of studies in education and the behavioral sciences*: Edits publishers.
- Islam, M. S. (2015). An Analysis of Factors Affecting on Online Shopping Behavior of Consumers. *European Journal of Business and Management*, 7(28), 2222-1905.
- Jarvenpaa, S. L., & Todd, P. A. (1997). Is there a future for retailing on the Internet. *Electronic Marketing and the Consumer*, 1(12), 139-154.
- Jarvenpaa, S. L., Tractinsky, N., & Saarinen, L. (1999). Consumer trust in an Internet store: A cross-cultural validation. *Journal of Computer-Mediated Communication*, 5(2), JCMC526.
- Jiang, J.-C., Chen, C.-A., & Wang, C.-C. (2008). *Knowledge and trust in E-consumers' online shopping behavior*. Paper presented at the Electronic Commerce and Security, 2008 International Symposium on.
- Jibril, A. B., Kwarteng, M. A., Pilik, M., Botha, E., & Osakwe, C. N. (2020). Towards understanding the initial adoption of online retail stores in a low internet penetration context: An exploratory work in Ghana. *Sustainability*, 12(3), 854.
- Juan Tan, S. (1999). Strategies for reducing consumers' risk aversion in Internet shopping. *Journal of Consumer Marketing*, 16(2), 163-180.

- Jukariya, T., & Singhvi, R. (2018). A Study of Factors Affecting Online Buying Behavior of Students. *Int. J. Curr. Microbiol. App. Sci*, 7(1), 2558-2565.
- Karayanni, D. A. (2003). Web-shoppers and non-shoppers: compatibility, relative advantage and demographics. *European Business Review*, 15(3), 141-152.
- Keeney, R. L. (1999). The value of Internet commerce to the customer. *Management Science*, 45(4), 533-542.
- Kennedy, A., & Coughlan, J. (2006). Online shopping portals: an option for traditional retailers? *International Journal of Retail & Distribution Management*, 34(7), 516-528.
- Khan-SZABIST, S. H., & Arshad-SZABIST, S. Z. (2010). Why E-Commerce Remains Unsuccessful in Pakistan?
- Khan, F., Rasli, A., Yusoff, R., & Isa, K. (2015). Impact of Trust on Online Shopping: A Systematic Review of Literature. *Journal of Advanced Review on Scientific Research*, 8(1), 1-8.
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(2), 544-564.
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2009). Trust and satisfaction, two stepping stones for successful e-commerce relationships: A longitudinal exploration. *Information Systems Research*, 20(2), 237-257.
- Kim, H.-b., Kim, T. T., & Shin, S. W. (2009). Modeling roles of subjective norms and eTrust in customers' acceptance of airline B2C eCommerce websites. *Tourism Management*, 30(2), 266-277.

- Kim, H.-W., Xu, Y., & Gupta, S. (2012). Which is more important in Internet shopping, perceived price or trust? *Electronic Commerce Research and Applications*, 11(3), 241-252.
- Kim, I. (2010). Consumers' rankings of risk reduction strategies in e-shopping. *International Journal of Business Research*, 10(3), 143-148.
- Kim, J., & Lennon, S. J. (2013). Effects of reputation and website quality on online consumers' emotion, perceived risk and purchase intention: Based on the stimulus-organism-response model. *Journal of Research in Interactive Marketing*, 7(1), 33-56.
- Ko, H., Jung, J., Kim, J., & Shim, S. W. (2004). Cross-cultural differences in perceived risk of online shopping. *Journal of Interactive Advertising*, 4(2), 20-29.
- Kollock, P. (1994). The emergence of exchange structures: An experimental study of uncertainty, commitment, and trust. *American Journal of Sociology*, 100(2), 313-345.
- Korgaonkar, P. A., & Karson, E. J. (2007). The influence of perceived product risk on consumers'e-tailer shopping preference. *Journal of Business and Psychology*, 22(1), 55-64.
- Kotrlik, J., & Higgins, C. (2001). Organizational research: Determining appropriate sample size in survey research appropriate sample size in survey research. *Information Technology, Learning, and Performance Journal*, 19(1), 43.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.

- Kuan, H.-H., & Bock, G.-W. (2007). Trust transference in brick and click retailers: An investigation of the before-online-visit phase. *Information & Management*, 44(2), 175-187.
- Kumar, R. (2005). *Research Methodology*, London: Sage Publications Ltd.
- Kurnia, S., & Chien, J. (2003). *The acceptance of the online grocery shopping*. Paper presented at the The 16th Bled Electronic Commerce Conference, Bled, Slovenia.
- Laohapensang, O. (2009). Factors influencing internet shopping behaviour: a survey of consumers in Thailand. *Journal of Fashion Marketing and Management: An International Journal*, 13(4), 501-513.
- Lauer, T. W., & Deng, X. (2007). Building online trust through privacy practices. *International Journal of Information Security*, 6(5), 323-331.
- Lee, Y.-C. (2014). Impacts of decision-making biases on eWOM retrust and risk-reducing strategies. *Computers in Human Behavior*, 40, 101-110.
- Leek, S., & Christodoulides, G. (2011). Brands: Just for consumers? Introduction to the special issue on B2B branding. *Industrial Marketing Management*, 40(7), 1060-1062.
- Li, N., & Zhang, P. (2002). Consumer online shopping attitudes and behavior: An assessment of research. *AMCIS 2002 Proceedings*, 74.
- Li, Y.-H., & Huang, J.-W. (2009). Applying theory of perceived risk and technology acceptance model in the online shopping channel. *World Academy of Science, Engineering and Technology*, 53(1), 919-925.

- Lian, J.-W., & Lin, T.-M. (2008). Effects of consumer characteristics on their acceptance of online shopping: Comparisons among different product types. *Computers in Human Behavior*, 24(1), 48-65.
- Liang, T.-P., & Huang, J.-S. (1998). An empirical study on consumer acceptance of products in electronic markets: a transaction cost model. *Decision Support Systems*, 24(1), 29-43.
- Liang, T.-P., & Lai, H.-J. (2000). *Electronic store design and consumer choice: an empirical study*. Paper presented at the System Sciences, 2000. Proceedings of the 33rd Annual Hawaii International Conference on.
- Liao, C., Liu, C.-C., & Chen, K. (2011). Examining the impact of privacy, trust and risk perceptions beyond monetary transactions: An integrated model. *Electronic Commerce Research and Applications*, 10(6), 702-715.
- Liao, Z., & Cheung, M. T. (2001). Internet-based e-shopping and consumer attitudes: an empirical study. *Information & Management*, 38(5), 299-306.
- Lim, Y., Osman, A., Manaf, A. H. A., & Abdullah, S. (2015). The Mediating Effect of Consumers' Purchase Intention: A Perspective of Online Shopping Behavior among Generation Y. *Journal of Marketing and Consumer Research*, 18, 101-112.
- Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016). Factors influencing online shopping behavior: the mediating role of purchase intention. *Procedia Economics and Finance*, 35, 401-410.

- Lim, Y. J., Osman, A. B., & Halim, M. S. B. A. (2014). Perceived usefulness and trust towards consumer behaviors: a perspective of consumer online shopping. *Journal of Asian Scientific Research*, 4(10), 541.
- Limayem, M., Khalifa, M., & Frini, A. (2000). What makes consumers buy from Internet? A longitudinal study of online shopping. *IEEE Transactions on Systems, Man, and Cybernetics-Part A: Systems and Humans*, 30(4), 421-432.
- Limbu, Y. B., Wolf, M., & Lunsford, D. (2012). Perceived ethics of online retailers and consumer behavioral intentions: The mediating roles of trust and attitude. *Journal of Research in Interactive Marketing*, 6(2), 133-154.
- Lohse, G. L., & Spiller, P. (1998). Electronic shopping. *Communications of the ACM*, 41(7), 81-87.
- Lowry, P. B., & Gaskin, J. (2014). Partial least squares (PLS) structural equation modeling (SEM) for building and testing behavioral causal theory: When to choose it and how to use it. *IEEE transactions on professional communication*, 57(2), 123-146.
- Lu, L. (2012). Attitudes towards aging and older people's intentions to continue working: a Taiwanese study. *Career Development International*, 17(1), 83-98.
- Maignan, I., & Lukas, B. A. (1997). The nature and social uses of the Internet: A qualitative investigation. *Journal of Consumer Affairs*, 31(2), 346-371.
- Malhotra, N. K. (2004). *Marketing research: An applied orientation* (4th ed.). Upper Saddle River, NJ: Prentice Hall.
- Mamman, H., Maidawa, M., & Saleh, M. (2015). Effects of Perceived Risk on Online Shopping.

- Manaf, A. H. A., Jin, L. Y., Osman, A., & Abdullah, M. S. (2015). The Mediating Effect of Consumers' Purchase Intention: A Perspective of Online Shopping Behavior among Generation Y *Journal of Marketing and Consumer Research: An International Peer-reviewed Journal*, 18.
- Maronick, T. J. (1995). An empirical investigation of consumer perceptions of "made in USA" claims. *International Marketing Review*, 12(3), 15-30.
- Masoud, E. Y. (2013). The effect of perceived risk on online shopping in Jordan. *European Journal of Business and Management*, 5(6), 76-87.
- Mathur, N. (2015). Perceived Risks Towards Online Shopping: An Empirical Study of Indian Customers. *International Journal of Engineering Development and Research*, 3(2), 297.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709-734.
- McCarthy, C. (2008). Social-shopping Site ThisNext Rakes in Venture Cash,|| Cnet. from http://news.cnet.com/8301-13577_39861070-36.html
- McCole, P. (2002). The role of trust for electronic commerce in services. *International Journal of Contemporary Hospitality Management*, 14(2), 81-87.
- McCole, P., Ramsey, E., & Williams, J. (2010). Trust considerations on attitudes towards online purchasing: The moderating effect of privacy and security concerns. *Journal of Business Research*, 63(9-10), 1018-1024.
- McCrae, R. R., Kurtz, J. E., Yamagata, S., & Terracciano, A. (2011). Internal consistency, retest reliability, and their implications for personality scale validity. *Personality and social Psychology Review*, 15(1), 28-50.

- McKnight, D. H., & Chervany, N. L. (2001). What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology. *International Journal of Electronic Commerce*, 6(2), 35-59.
- McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). The impact of initial consumer trust on intentions to transact with a web site: a trust building model. *The Journal of Strategic Information Systems*, 11(3-4), 297-323.
- Md Husin, M., & Ab Rahman, A. (2013). What drives consumers to participate into family takaful schemes? A literature review. *Journal of Islamic Marketing*, 4(3), 264-280.
- Metzger, M. J. (2004). Privacy, trust, and disclosure: Exploring barriers to electronic commerce. *Journal of Computer-Mediated Communication*, 9(4), JCMC942.
- Miller, L. E., & Smith, K. L. (1983). Handling nonresponse issues. *Journal of Extension*, 21, 45-50.
- Mitchell, P., & Taylor, L. M. (1999). Shape constancy and theory of mind: is there a link? *Cognition*, 70(2), 167-190.
- Mitchell, V.-W. (1999). Consumer perceived risk: conceptualisations and models. *European Journal of Marketing*, 33(1/2), 163-195.
- Miyazaki, A. D., & Fernandez, A. (2001). Consumer perceptions of privacy and security risks for online shopping. *Journal of Consumer Affairs*, 35(1), 27-44.
- Models, B. C. (2016, April 28). The Theory of Planned Behavior: Limitations of the Theory of Planned Behavior. from <http://sphweb.bumc.bu.edu/otlt/MPH-Modules/SB/BehavioralChangeTheories/BehavioralChangeTheories3.html>

- Molm, L. D. (1994). Dependence and risk: Transforming the structure of social exchange. *Social Psychology Quarterly*, 163-176.
- Molm, L. D., Schaefer, D. R., & Collett, J. L. (2009). Fragile and resilient trust: Risk and uncertainty in negotiated and reciprocal exchange. *Sociological Theory*, 27(1), 1-32.
- Molm, L. D., Takahashi, N., & Peterson, G. (2000). Risk and trust in social exchange: An experimental test of a classical proposition. *American Journal of Sociology*, 105(5), 1396-1427.
- Moorman, C., Deshpande, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *the Journal of Marketing*, 81-101.
- Mukherjee, A., & Nath, P. (2007). Role of electronic trust in online retailing: A re-examination of the commitment-trust theory. *European Journal of Marketing*, 41(9/10), 1173-1202.
- Nations, T. (2020). Online Shopping Frauds. Retrieved 12 October, 2020, from <https://nation.com.pk/02-Oct-2018/online-shopping-frauds>.
- Nazir, S., Tayyab, A., Sajid, A., Rashid, H., & Javed, I. (2012). How Online Shopping Is Affecting Consumers Buying Behavior in Pakistan? *International Journal of Computer Science Issues*, 9(3), 486-495.
- Nepomuceno, M. V., Laroche, M., & Richard, M.-O. (2014). How to reduce perceived risk when buying online: The interactions between intangibility, product knowledge, brand familiarity, privacy and security concerns. *Journal of Retailing and Consumer Services*, 21(4), 619-629.

- Nielsen, A. (2010). Global trends in online shopping. *A Nielsen Global Consumer Report*, 1-10.
- Nikhashemi, S. R., Haque, A., Yasmin, F., & Khatib, A. (2012). *Service Quality and Consumer Purchasing Intention Toward Online Ticketing: An Empirical Study in Iran*. Paper presented at the International Conference on Economics, Business Innovation IPEDR.
- Nittala, R. (2015). Factors Influencing Online Shopping Behavior of Urban Consumers in India. *International Journal of Online Marketing (IJOM)*, 5(1), 38-50.
- Nor, K. M., & Pearson, J. M. (2008). An exploratory study into the adoption of internet banking in a developing country: Malaysia. *Journal of Internet Commerce*, 7(1), 29-73.
- OECD. (1998). The economic and social impact of electronic commerce. .
- Olakunke, A. (2003). Research methods in social sciences: E-Book press, Norway.
- Oppenheim, A. N. (2000). *Questionnaire design, interviewing and attitude measurement*: Bloomsbury Publishing.
- Organ, D. W., & Ryan, K. (1995). A meta- analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48(4), 775-802.
- Osborne, J. W. (2010). Improving your data transformations: Applying the Box-Cox transformation. *Practical Assessment, Research & Evaluation*, 15(12), 2.
- Pabalkar, V. (2014). Drivers of eShopping Behaviour. *Procedia Economics and Finance*, 11, 600-608.

- Pakwired. (2017, July 20). EasyPaisa now lets users create mastercard credit card within seconds. from <https://pakwired.com/easypaisa-now-lets-users-create-mastercard-credit-card-within-seconds/>
- Pallant, J. (2010). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS*.
- Pallant, J. (2011). *SPSS Survival manual: a step by step guide to data analysis using SPSS*. Crows Nest. *New South Wales: Allen & Unwin*.
- Palvia, P. (2009). The role of trust in e-commerce relational exchange: A unified model. *Information & Management*, 46(4), 213-220.
- Pappas, N. (2016). Marketing strategies, perceived risks, and consumer trust in online buying behaviour. *Journal of Retailing and Consumer Services*, 29, 92-103.
- Park, C.-H., & Kim, Y.-G. (2003). Identifying key factors affecting consumer purchase behavior in an online shopping context. *International Journal of Retail & Distribution Management*, 31(1), 16-29.
- Park, E. (2013). The adoption of tele-presence systems: Factors affecting intention to use tele-presence systems. *Kybernetes*, 42(6), 869-887.
- Paul, P. (1996). Marketing on the Internet. *Journal of consumer marketing*, 13(4), 27-39.
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 101-134.
- Pavlou, P. A., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS Quarterly*, 115-143.

- Pearl, D. K., & Fairley, D. (1985). Testing for the potential for nonresponse bias in sample surveys. *Public Opinion Quarterly*, 49(4), 553-560.
- Peng, D. X., & Lai, F. (2012). Using partial least squares in operations management research: A practical guideline and summary of past research. *Journal of Operations Management*, 30(6), 467-480.
- Perea y Monsuwé, T., Dellaert, B. G., & De Ruyter, K. (2004). What drives consumers to shop online? A literature review. *International Journal of Service Industry Management*, 15(1), 102-121.
- Peter, J. P., & Ryan, M. J. (1976). An investigation of perceived risk at the brand level. *Journal of Marketing Research*, 184-188.
- Peter, J. P., & Tarpey Sr, L. X. (1975). A comparative analysis of three consumer decision strategies. *Journal of Consumer Research*, 2(1), 29-37.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539-569.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531-544.
- Pollatsek, A., & Tversky, A. (1970). A theory of risk. *Journal of Mathematical Psychology*, 7(3), 540-553.

- Popli, A., & Mishra, S. (2015). Factors of Perceived Risk Affecting Online Purchase Decisions of Consumers. *Pacific Business Review International*, 8 (2), 49, 58.
- Poushter, J., Bishop, C., & Chwe, H. (2018). Social media use continues to rise in developing countries but plateaus across developed ones. *Pew Research Center*, 22.
- ProPakistani. (2016). Primed for Growth: An Analysis of Pakistan's eCommerce Market in 2016.
- ProPakistani. (2018). Literacy Rate in Pakistan Drops by 2% in 2016-17. from <https://propakistani.pk/2017/05/26/literacy-rate-pakistan-drops-2-2016-17/>
- PTA. (2014, Feb 04). PTA (Pakistan Telecommunication Authority) Annual report 2014. from <http://www.pta.gov.pk/annual-reports/ptaannrep2013-14.pdf>
- Pudaruth, S., & Busviah, D. (2018). Developing and Testing a Pioneer Model for Online Shopping Behavior for Natural Flowers: Evidence from Mauritius. *Studies in Business and Economics*, 13(1), 128-147.
- Quelch, J. A., & Klein, L. R. (1996). Opinion: The Internet and international marketing. *Sloan Management Review*, 37(3), 60.
- Qureshi, H. A., Fatima, R., & Sarwar, A. (2014). BARRIERS TO ADOPTION OF ONLINE SHOPPING IN PAKISTAN. *Science International*, 26(3).
- Ramayah, T., Lee, J. W. C., & In, J. B. C. (2011). Network collaboration and performance in the tourism sector. *Service Business*, 5(4), 411.
- Ratilla, M. (2016). *Quantitative marketing research*. Masarykova univerzita, Ekonomicko-správní fakulta.

- Rehman, S.-u. (2018). Impact of Financial Risk, Privacy Risk, Convenience, and Trust on Online Shopping With Mediating Role of Consumer Purchase Intention in Pakistan. *International Journal of Academic Multidisciplinary Research (IJAMR)*, 2(8), 27-34.
- Rehman, A. A., & Alharthi, K. (2016). An introduction to research paradigms. *International Journal of Educational Investigations*, 3(8), 51-59.
- Rehman, S.-u., Bhatti, A., Mohamed, R., & Ayoup, H. (2019a). The moderating role of trust and commitment between consumer purchase intention and online shopping behavior in the context of Pakistan. *Journal of Global Entrepreneurship Research*, 9(1), 43.
- Rehman, S.-u., Mohamed, R., & Ayoup, H. (2019). The mediating role of organizational capabilities between organizational performance and its determinants. *Journal of Global Entrepreneurship Research*, 9(1), 1-23. doi: 10.1186/s40497-019-0155-5
- Reinartz, W., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of Research in Marketing*, 26(4), 332-344.
- Remarkety. (2017, June 18). Global eCommerce Sales, Trends and Statistics 2016. from <https://www.remarkety.com/global-ecommerce-trends-2016>
- Revelle, W. (1979). Hierarchical cluster analysis and the internal structure of tests. *Multivariate Behavioral Research*, 14(1), 57-74.
- Richards, K. (2003). *Qualitative inquiry in TESOL*. New York, NY: Palgrave Macmillan.
- ROGERS, E. M. (1962). Diffusion of innovations. *Diffusion of innovations*.
- Roloff, M. E. (1981). Interpersonal communication: The social exchange approach.

- Roscoe, J. T. (1975). *Fundamental research statistics for the behavioral sciences [by] John T. Roscoe*.
- Ross, J. K., Patterson, L. T., & Stutts, M. A. (1992). Consumer perceptions of organizations that use cause-related marketing. *Journal of the Academy of Marketing Science*, 20(1), 93-97.
- Roszkowski, M. J., & Soven, M. (2010). Shifting gears: Consequences of including two negatively worded items in the middle of a positively worded questionnaire. *Assessment & Evaluation in Higher Education*, 35(1), 113-130.
- Salam, A., Rao, R., & Pegels, C. (1998). An investigation of consumer-perceived risk on electronic commerce transactions: The role of institutional trust and economic incentive in a social exchange framework. *AMCIS 1998 Proceedings*, 114.
- Salisbury, W. D., Pearson, R. A., Pearson, A. W., & Miller, D. W. (2001). Perceived security and World Wide Web purchase intention. *Industrial Management & Data Systems*, 101(4), 165-177.
- Salkind, N. J., & Rainwater, T. (2003). *Exploring research*: Prentice Hall Upper Saddle River, NJ.
- Salo, J., & Karjaluoto, H. (2007). A conceptual model of trust in the online environment. *Online Information Review*, 31(5), 604-621.
- Saprikis, V., Chouliara, A., & Vlachopoulou, M. (2010). Perceptions towards online shopping: Analyzing the Greek University students' attitude. *Communications of the IBIMA*.

- Sarstedt, M., Hair, J. F., Ringle, C. M., Thiele, K. O., & Gudergan, S. P. (2016). Estimation issues with PLS and CBSEM: Where the bias lies! *Journal of Business Research*, 69(10), 3998-4010.
- Schlosser, A. E., White, T. B., & Lloyd, S. M. (2006). Converting web site visitors into buyers: how web site investment increases consumer trusting beliefs and online purchase intentions. *Journal of Marketing*, 70(2), 133-148.
- Schriesheim, C. A., & Eisenbach, R. J. (1995). An exploratory and confirmatory factor-analytic investigation of item wording effects on the obtained factor structures of survey questionnaire measures. *Journal of Management*, 21(6), 1177-1193.
- Sekaran, U., & Bougie, R. (2000). *Research methods for business: A skill building approach*: John Wiley & Sons.
- Sekaran, U., & Bougie, R. (2010). *Research Method for Business, A Skill Building Approach*. John Wiley & Sons Inc: Singapore.
- Sekaran, U., & Bougie, R. (2010). *Research methods for business: A skill building approach*: John Wiley & Sons.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*: John Wiley & Sons.
- Shackman, J. D. (2013). The use of partial least squares path modeling and generalized structured component analysis in international business research: A literature review. *International Journal of Management*, 30(3), 78.
- Shahzad, H. (2015). Online Shopping Behavior.
- Sharma, J. K., & Kurien, D. (2017). Perceived Risk in E-Commerce: A Demographic Perspective. *NMIMS Management Review*, 34(1), 31-57.

- Sheikh, K., & Mattingly, S. (1981). Investigating non-response bias in mail surveys. *Journal of Epidemiology & Community Health*, 35(4), 293-296.
- Shih, Y.-Y., & Fang, K. (2004). The use of a decomposed theory of planned behavior to study Internet banking in Taiwan. *Internet Research*, 14(3), 213-223.
- Shim, S., Eastlick, M. A., Lotz, S. L., & Warrington, P. (2001). An online prepurchase intentions model: The role of intention to search: Best Overall Paper Award—The Sixth Triennial AMS/ACRA Retailing Conference, 2000☆ 1. *Journal of Retailing*, 77(3), 397-416.
- Shukla, R. K. (2016). Gender effect on customers perception towards online shopping. *BVIMSR's Journal of Management Research*, 8(1), 25.
- Silverstein, B. (1999). *Business-to-business internet marketing*: Maximum Press Gulf Breeze^ eFL FL.
- Singer, E. (2006). Introduction: Nonresponse bias in household surveys. *International Journal of Public Opinion Quarterly*, 70(5), 637-645.
- Smith, H. J., Milberg, S. J., & Burke, S. J. (1996). Information privacy: measuring individuals' concerns about organizational practices. *MIS quarterly*, 167-196.
- Soley-Bori, M. (2013). Dealing with missing data: Key assumptions and methods for applied analysis. *Boston University*.
- Spradley, J. P. (1979). The ethnographic interview. New York: Holt, Rinehart & Winston.
- Srivastava, T., & Rego, S. (2011). *Business research methodology*: Tata McGraw-Hill Education.
- Statista. (2018). Number of internet users worldwide from 2005 to 2017 (in millions).

- Statistics, I. W. S. U. a. P. (2018, 24 August). Asia Marketing Research, Internet Usage, Population Statistics and Facebook Subscribers. from <https://www.internetworldstats.com/asia.htm#cn>
- Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *Journal of the Royal Statistical Society. Series B (Methodological)*, 111-147.
- Stone, R. N., & Grønhaug, K. (1993). Perceived risk: Further considerations for the marketing discipline. *European Journal of Marketing*, 27(3), 39-50.
- Straub, D. W. (1989). Validating instruments in MIS research. *MIS quarterly*, 147-169.
- Sudman, S., & Bradburn, N. M. (1983). Asking Questions: A Practical Guide to Questionnaire Design, San Francisco: Jossey Bass. .
- Suh, B., & Han, I. (2003). The impact of customer trust and perception of security control on the acceptance of electronic commerce. *International Journal of Electronic Commerce*, 7(3), 135-161.
- Sunil. (2015). Trends and practices of consumers buying online and offline: An analysis of factors influencing consumer's buying. *International Journal of Commerce and Management*, 25(4), 442-455.
- Survey, N. G. (2010). GLOBAL ONLINE SHOPPING REPORT. Retrieved 05 June, 2019, from <https://www.nielsen.com/us/en/insights/news/2010/global-online-shopping-report.html>
- Sweeney, J. C., Soutar, G. N., & Johnson, L. W. (1999). The role of perceived risk in the quality-value relationship: a study in a retail environment. *Journal of Retailing*, 75(1), 77-105.

- Swinyard, W. R., & Smith, S. M. (2003). Why people (don't) shop online: A lifestyle study of the internet consumer. *Psychology & Marketing*, 20(7), 567-597.
- Szymanski, D. M., & Hise, R. T. (2000). E-satisfaction: an initial examination. *Journal of Retailing*, 76(3), 309-322.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*: Allyn & Bacon/Pearson Education.
- Tariq, A., Bashir, B., & Shad, M. A. (2016). Factors affecting online shopping behavior of consumers in Pakistan *Journal of Marketing and Consumer Research*, 19.
- Tariq, A. N., & Eddaoudi, B. (2009). Assessing the effect of trust and security factors on consumers' willingness for online shopping among the urban Moroccans. *International Journal of Business and Management Science*, 2(1), 17.
- Tasin, N. B. (2017). Factors Influencing Customer's Trust in Online Shopping Among Executives in a Bank. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 2(3), 47-60.
- Taylor, S., & Todd, P. (1995). Assessing IT usage: The role of prior experience. *MIS Quarterly*, 561-570.
- Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, 6(2), 144-176.
- Tedeschi, B. (2006). Like shopping? Social networking? Try social shopping. *New York Times*, 11, 09.
- Teo, T. S., & Liu, J. (2007). Consumer trust in e-commerce in the United States, Singapore and China. *Omega*, 35(1), 22-38.

- Tibshirani, R. J., & Efron, B. (1993). An introduction to the bootstrap. *Monographs on Statistics and Applied Probability*, 57, 1-436.
- TRIBUNE, T. E. (2018, May 30). Pakistan's e-commerce market size set to cross \$1b this year. from <https://tribune.com.pk/story/1663707/2-pakistans-e-commerce-market-size-set-cross-1b-year/>
- Tsai, Y. C., & Yeh, J. C. (2010). Perceived risk of information security and privacy in online shopping: A study of environmentally sustainable products. *African Journal of Business Management*, 4(18), 4057.
- UNCTAD. (2017). UNCTAD E-commerce week "Towards inclusive e-commerce". Switzerland.
- ur Rehman, K., ur Rehman, I., Ashfaq, M., & Ansari, S. (2011). *Examining online purchasing behavior: A case of Pakistan*. Paper presented at the 2011 International Conference on Social Science and Humanity, Singapore, IPEDR.
- Van der Heijden, H., Verhagen, T., & Creemers, M. (2003). Understanding online purchase intentions: contributions from technology and trust perspectives. *European Journal of Information Systems*, 12(1), 41-48.
- Van Noort, G., Kerkhof, P., & Fennis, B. M. (2008). The persuasiveness of online safety cues: The impact of prevention focus compatibility of Web content on consumers' risk perceptions, attitudes, and intentions. *Journal of Interactive Marketing*, 22(4), 58-72.
- Van Slyke, C., Shim, J., Johnson, R., & Jiang, J. J. (2006). Concern for information privacy and online consumer purchasing. *Journal of the Association for Information Systems*, 7(1), 16.

- Van Teijlingen, E. R., & Hundley, V. (2001). The importance of pilot studies.
- Varma, I. G., & Agarwal, M. R. (2014). Online Buying Behaviour of Homemakers in Western Suburbs of Mumbai and Social Media Influence. *IOSR Journal of Business and Management*, 16(8), 42-65.
- Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information Systems Research*, 11(4), 342-365.
- Vink, J. M., & Boomsma, D. I. (2008). A comparison of early and late respondents in a twin-family survey study. *Twin Research and Human Genetics*, 11(2), 165-173.
- Viswanathan, M., & Kayande, U. (2012). Commentary on “common method bias in marketing: Causes, mechanisms, and procedural remedies”. *Journal of Retailing*, 88(4), 556-562.
- Wang, Y. D., & Emurian, H. H. (2005a). An overview of online trust: Concepts, elements, and implications. *Computers in Human Behavior*, 21(1), 105-125.
- Wang, Y. D., & Emurian, H. H. (2005b). Trust in e-commerce: consideration of interface design factors¹. *Journal of Electronic Commerce in Organizations*, 3(4), 42.
- Weathers, D., & Makienko, I. (2006). Assessing the relationships between e- tail success and product and Web site factors. *Journal of Interactive Marketing*, 20(2), 41-54.
- Westin, A. F. (1968). Privacy and freedom. *Washington and Lee Law Review*, 25(1), 166.
- Williams, B., Onsman, A., & Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, 8(3).
- Wilson, A., Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2006). *Services marketing: Integrating customer focus across the firm*: McGraw Hill.

- Pakistan digital economy: National perspective on bridging the digital divide (2017).
- Xie, G., Zhu, J., Lu, Q., & Xu, S. (2011). *Influencing factors of consumer intention towards web group buying*. Paper presented at the 2011 IEEE International Conference on Industrial Engineering and Engineering Management.
- Ying, Y. (2006). *Essays on modeling consumer behavior in online shopping environments*.
- Yoon Kin Tong, D., Fa Tong, X., & Yin, E. (2012). Young consumers' views of infused soft drinks innovation. *Young Consumers*, 13(4), 392-406.
- Yu, D., Dong, T., Liu, R.-m., & Yuan, Y. (2007). Study of types, resources and their influential factors of perceived risks in purchase online. *Journal of Dalian University of Technology*, 28(2), 13-19.
- Zendehdel, M., Paim, L. H., & Osman, S. B. (2015). Students' online purchasing behavior in Malaysia: Understanding online shopping attitude. *Cogent Business & Management*, 2(1), 1078428.
- Zhang, J., Zheng, W., & Wang, S. (2020). The study of the effect of online review on purchase behavior. *International Journal of Crowd Science*, 4(1), 73-86.
- Zhou, T. (2011). Understanding online community user participation: a social influence perspective. *Internet Research*, 21(1), 67-81.
- Zikmund, W. G. (2003). Sample designs and sampling procedures. *Business Research Methods*, 7(2), 368-400.
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2003). *Business Research Methods*: Cengage Learning.

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business Research Methods*: Cengage Learning.





A Research Questionnaire

Universiti Utara Malaysia

Othman Yeop Abdullah Graduate School of Business

Sintok-Malaysia

Survey

This study is a PhD research which covers financial risk, product risk, convenience risk, privacy risk, trust, and online shopping behavior. It is hoped that the outcome of the study will be of immense benefit to online vendors in Pakistan. Your effort in filling the questionnaire is highly appreciated in order to ensure the quality of the research output. It will take your 15-20 minutes.

Your answer plays a significant role in the success of this study and you are assured that such will be treated with utmost **confidentiality**. For any inquiries about the study or if you need any help in completing the questionnaire, please contact:

Thanks you for your time and kind cooperation sincerely

Anam Bhatti
Anambhatti1992@gmail.com

Appendix A

Section One: Demographic Profiles

Pick tick (✓) the appropriate option as follows:

1. Do you have online shopping experience?

☐

Yes

☐

No

2. Gender?

☐

Male

☐

Female

3. What is the level of your highest educational qualification?

☐

Diploma

☐

Bachelor degree

☐

Master degree

☐

PhD

☐

Others

3. Do you have a credit/debit card?

☐

s

☐

5. Your marital status?

☐

Single

☐

Married

☐

Divorced

6. What is your average monthly income in Pakistani rupees?

☐

No Income

☐

1 – 5000

☐

5001 – 10,000

☐

10,001 – 15,000

☐

More than 15,000

7. Are you self-supported?

☐

Yes

☐

No

8. What is your age?

☐

Up to 15 years

☐

16 – 20 years

☐

21 – 25 years

☐

26 – 30 years

☐

31 and above

Section Two: Online shopping behavior

The following statements relate to the online shopping behavior. Please indicate the extent to which the following items describe your decision to purchase goods online.

(1 = Strongly Disagree, 2=Disagree, 3=neither agree nor disagree 4=Agree 5=strongly agree)

Online shopping behavior	1	2	3	4	5
1. I prefer online shopping as I can shop in privacy at home.					
2. I prefer online shopping as I do not have to leave home for shopping.					
3. I prefer online shopping as I can shop whenever I want.					
4. I prefer online shopping as I can then save myself from chaos of traffic.					
5. I prefer online shopping as I can save myself from market crowd.					
6. I prefer online shopping as I can get detailed product information online.					
7. I prefer online shopping as I get broader selection of products online.					
8. Online shopping gives benefit of easy price comparison.					
9. I prefer online shopping as I get user/expert reviews on the product.					
10. I prefer online shopping as there is no embarrassment if I do not buy.					
11. I prefer online shopping as I can take as much time as I want to decide.					
12. I prefer online shopping for buying products which are otherwise not easily available in the nearby market or are unique (new).					
13. Online shopping makes my shopping comfortable.					
14. Online shopping gives me better control over my expenses.					
15. I find online shopping well-matched with my life-style.					
16. Using Internet for shopping requires a less mental effort.					
17. Online shopping procedure is bulky and frustrating.					

Section Three: Factors affecting online shopping behavior

The following statements relate to the factor (financial risk, privacy risk, product risk, and convenience risk) that have influence on online shopping behavior. Please indicate the extent to which the following items describe your decision to purchase goods online.

(1 = Strongly Disagree, 2=Disagree, 3=neither agree nor disagree 4=Agree 5=strongly agree)

Financial risk	1	2	3	4	5
1. I have confidence purchasing through online.					
2. I do not worry getting products online.					
3. I may purchase goods accidentally through online.					
4. My personal information secure in online shopping.					
5. I may get what I want through online shopping.					
6. My credit card number is secure when preferring online shopping.					
7. Online shopping does not charge extra amount.					

Privacy risk	1	2	3	4	5
1. The website protects my personal information while shopping.					
2. I feel secure purchasing online through website.					
3. I feel comfortable to see the authorization mechanisms of this website.					
4. This website provides complete information to me about product.					
5. This website helps me in reducing uncertainty.					
6. I trust this website while purchasing online.					

Product risk	1	2	3	4	5
1. I can examine the actual product online.					
2. With online shopping product size is not a problem.					
3. It is not hard to judge the quality of product.					
4. I can try product in online shopping.					
5. I am able to touch and feel the product in online shopping.					
6. In online shopping shipping and handling charges very less.					
7. In online shopping goods are delivered quickly.					

Convenience risk	1	2	3	4	5
1. Order placement is very easy at online shopping					
2. It is easy to search appropriate website for shopping					
3. Pictures take short time to come up					
4. Finding right product in online shopping is very easy					
5. In online shopping less time of delivery and can wait easily					
6. I can examine the product in online shopping					

7. In online shopping less chances of dispute					
8. It is easy to cancel order in online shopping					
9. In online shopping there is no problem in returning the purchased product					

Section Four: Trust and Subjective Norms

The following statements relate to trust. Please indicate the extent to which the following items describe your decision to purchase goods online.

(1 = Strongly Disagree, 2=Disagree, 3=neither agree nor disagree 4=Agree 5=strongly agree)

Trust	1	2	3	4	5
1. This retailer's website is safe for online shopping					
2. This retailer's website will protect consumer private data					
3. This retailer's website gives guarantee against misuses of private data for commercial purposes					
4. Logos of organizations give guarantee to consumers that online buying is secured					
5. This retailer's website gives transparent guarantee policy					

Subjective Norms	1	2	3	4	5
1. People important to me would think that internet shopping is a wise idea.					
2. People important to me would think that internet shopping is a good idea.					
3. Most people important to me would think I should buy online.					
4. My family important to me would think that internet shopping is a wise idea.					
5. My family important to me would think that internet shopping is a good idea.					
6. My family important to me would think I should buy online.					

Appendix B

Table 4.17

Factor Loadings (Deleted and Retained Items)

Latent variables	Code	Description	Item Loading
Online Shopping Behavior	OSB1	Prefer online shopping as privacy at home.	0.581
	OSB10	I prefer online shopping as there is no embarrassment if I do not buy.	0.153
	OSB11	Prefer online shopping as time much time as I want.	0.641
	OSB12	Prefer online shopping which are otherwise not easily available in market.	0.633
	OSB13	Online shopping makes my shopping comfortable.	0.722
	OSB14	Online shopping gives better control over my expenses.	0.727
	OSB15	Online shopping well-matched with my life-style.	0.798
	OSB16	Using internet for shopping requires a less mental effort.	0.781
	OSB17	Online shopping procedure is bulky and frustrating.	0.733
	OSB2	I prefer online shopping as I do not have to leave home for shopping.	0.333
	OSB3	Prefer online shopping as shop whenever I want.	0.664
	OSB4	Prefer online shopping as save myself from chaos of traffic.	0.738
	OSB5	Prefer online shopping as save myself from market crowd.	0.784
	OSB6	I prefer online shopping as I can get detailed product information online.	0.282
	OSB7	Prefer online shopping as get broader selection of products online.	0.736
	OSB8	Online shopping gives benefit of easy price comparison.	0.190
	OSB9	Prefer online shopping as get user/expert reviews on the product.	0.656
Financial Risk	FR1	I have confidence purchasing through online.	0.015
	FR2	I do not worry getting product online.	0.894
	FR3	I may purchase goods accidentally through online.	0.801
	FR4	My personal information secure in online shopping.	0.473
	FR5	I may get what I want through online shopping.	0.841
	FR6	My credit card number is secure when preferring online shopping.	0.118
	FR7	Online shopping does not charge extra amount.	0.705
Product Risk	PDR1	I can examine the actual product online.	0.705
	PDR2	With online shopping product size is not a problem.	0.679
	PDR3	It is not hard to judge the quality of product.	0.633
	PDR4	I can try product in online shopping.	0.759
	PDR5	I am able to touch and feel the product in online shopping.	0.631

Table 4.17 (Continued)

Latent variables	Code	Description	Item Loading
Product Risk	PDR6	In online shopping shipping and handling charges very less.	0.842
	PDR7	In online shopping goods are delivered quickly.	0.761
Convenience Risk	CR1	Order placement is very easy at online shopping.	0.764
	CR2	It is easy to search appropriate website for shopping.	0.826
	CR3	Pictures take short time to come up.	0.738
	CR4	Finding right product in online shopping is very easy	0.002
	CR5	In online shopping less time of delivery and can wait easily.	0.812
	CR6	I can examine the product in online shopping.	0.791
	CR7	In online shopping less chances of dispute	0.110
	CR8	It is easy to cancel order in online shopping.	0.802
	CR9	In online shopping there is no problem in returning the purchased product.	0.812
Privacy Risk	PPR1	The website protects my personal information while shopping.	0.876
	PPR2	I feel secure purchasing online through website.	0.068
	PPR3	I feel comfortable to see the authorization mechanism of this website.	0.770
	PPR4	This website provides complete information to me about product.	0.012
	PPR5	This website helps me in reducing uncertainty.	0.560
	PPR6	I trust this website while purchasing online.	0.006
Subjective Norms	SBN1	People important to me would think that internet shopping is a wise idea.	0.674
	SBN2	People important to me would think that internet shopping is a good idea.	0.067
	SBN3	Most people important to me would think I should buy online.	0.830
	SBN4	My family important to me would think that internet shopping is a wise idea.	0.834
	SBN5	My family important to me would think that internet shopping is a good idea.	0.179
	SBN6	My family important to me would think I should buy online.	0.702
Trust	TR1	This retailer's website is safe for online shopping.	0.841
	TR2	This retailer's website will protect consumer private data.	0.859
	TR3	This retailer's website gives guarantee against misuses of private data for commercial purposes.	0.880
	TR4	Logos of organizations give guarantee to consumers that online buying is secured.	0.671
	TR5	This retailer's website gives transparent guarantee policy.	0.735